Amendments to the Drawings:

The attached sheet of drawings includes changes to FIG. 2 and new sheet FIG. 2B. The sheet of FIG. 2A replaces the original sheet of FIG. 2 and new sheet FIG. 2B is added. FIG. 2B is the same as original FIG. 2, except that groove shape is shown to include a V-shape as supported by the specification as noted in the remarks.

Attachment: Replacement Sheets

Annotated Sheet Showing Changes

REMARKS

Claims 1-20 are all of the claims presently pending in the application. Applicants have canceled claims without prejudice or disclaimer. Applicants has amended claims to more particularly define the claimed invention. Applicants has added claims to provide more varied protection for the claimed invention.

The amended and new claims are supported by the original claims, specification and drawings in their entirety, including, for example, paragraphs 24-36 and FIGS. 1-3.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claim 1 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 1, 5, and 8 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Yamamura, et al. (U.S. Patent No. 6,742,363). Claims 3, 4, and 10 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Yamamura in view of Japanese Patent Publication No. 57-1218110.

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as defined by exemplary claim 1) is directed to a method of elongating optical fiber base material, including heating and softening base material ingot in

such as an electric furnace, drawing said ingot with a pair of pinch rollers; and elongating the ingot to make base material rod having a smaller diameter than said ingot, wherein either one of a roller groove having a curvature radius which is greater than the outer diameter of the base material rod and a V-shaped roller groove having the cross section including straight lines is formed on each surface of the pinch rollers made of metal, and wherein the facing roller grooves respectively formed on the surfaces of a pair of the pinch rollers nip and draw the base material rod.

In the conventional art, during the elongation, the base material rod having a small diameter is nipped by a pair of pinch rollers and drawn. The surfaces of the used pinch rollers were burnt and damaged by contacting with the base material rod having a high temperature of over 400 degree centigrade, which causes the rollers to change size and shape with time. The pinch rollers, therefore, cannot draw the rod at the proper position, which makes the base material rod curved. (Application, paragraph 5).

The claimed invention of exemplary claim 1, on the other hand, provides the method of elongating optical fiber base material without being curved and correcting the curvature, and with high productivity, and the apparatus for elongating the same. (Application, paragraph 9).

II. THE INDEFINITESS REJECTION

The Examiner has rejected claim 1 under 35 U.S.C. 112 as allegedly being indefinite. Specifically, the examiner objected to reference character 17 being used to designate both vertical line and plumb bob and reference characters 16 and 18 being both used to designate jig.

Paragraph 34 was amended to indicate that reference 17 designates a vertical line.

However, with regard to the jig 16 and jig 18, there are two different jigs that are explained in the specification. Jig 16 indicates the center position of the roller grooves, and the other is the jig 18 that indicates the center of the heater as explained in the drawings and the specification. Therefore, respectfully, no amendment is necessary.

The Examiner also objects to the v-shaped roller groove that is mentioned in the claim and indicates that the drawing must show the feature or be cancelled from the claim. A new drawing was added accordingly to show the v-shaped feature. The new FIG. 2B is the same as FIG. 2A, except that the groove 11a is included as being V-shaped and including straight lines. The new FIG. 2B is supported, for example, by the original claims, paragraph 29 ("V-shaped roller grooves having the cross section consisting of straight lines") as referring to FIGS. 1-3, paragraph 10 ("V-shaped roller groove having the cross section consisting of straight lines on the surface of the pinch roller made of metal"), and paragraph 13 of the original specification. Therefore, no new matter was added.

III. THE PRIOR ART REFERENCES

A. The Yamamura Reference (U.S. Patent No. 6,742,363)

The Examiner alleges that Yamamura teaches the claimed invention of claims 1, 5, and 8. Applicants submit, however, that Yamamura does not teach or suggest each feature of the claimed invention.

The Yamamura reference includes a method for manufacturing a glass rod (106), which is a parent material of an optical fiber (350), including adjusting a vertical inclination of a standard rod (138) having a predetermined straightness, and heating and elongating a base

material (102), which is a parent material of the glass rod (106), along an axis of the standard rod (138), the vertical inclination of which is adjusted, to generate the glass rod (106). (Abstract of Yamamura).

The present application however claims (e.g.), *wherein a roller groove of said pinch rollers includes one of a curvature radius which is greater than the outer diameter of said base material rod and a V-shaped roller groove with a cross section including straight lines is formed on each surface of said pinch rollers comprised of metal, and wherein the facing roller grooves respectively formed on the surfaces of a pair of said pinch rollers nip and draw said base material rod.*

The Yamamura reference does not teach or suggest pinch rollers with a roller groove as seen in the claimed invention. The position of the base material rod can be maintained at the proper position because of the pinch rollers with the roller groove.

The Examiner points to elongating chuck 142 and the roller grooves 144a and 144b with regard to the roller grooves. However, in the Yamamura refers to 142 as the elongating chuck in FIG. 6 and it is replaced by the elongating rollers 144a and 144b in FIG. 10. There are no grooves taught with regard to the rollers 144 and the chuck is a different structure than the rollers and do not include the grooves as claimed that nip and draw the ingot, while being either one of a v-shaped groove or the curvature of the groove is larger than the base material rod. Both configurations are not included in either 144 or 142 and it stated that 144 replaces 142 in FIG. 10 ("FIG. 10 and FIG. 11 show examples that use elongating rollers 144a and 144b on the elongating mechanism 140 instead of the elongating chuck 142." (col. 8, lines 23-25 of Yamamura).

The Examiner argues that the curvature of radius is larger than the outer diameter of

the base material rod in col. 2, lines 26-34 of Yamamura, but Yamamura never teaches or suggests such a limitation in that section or any other. In fact, there is no discussion of any groove of the rollers 144 or grooves in the chuck 142. Therefore, there is no teaching in Yamamura as claimed. Further, there is no teaching or suggestion of the roller groove being V-shaped as claimed.

Therefore, Applicants submit that there are elements of the claimed invention that are not taught or suggest by Yamamura. Therefore, Applicants respectfully request the Examiner to withdraw this rejection.

B. The JP 57-1218110 Reference

The Examiner alleges that JP 57-1218110 (hereinafter, JP'110) would have been combined with Yamamura to teach the claimed invention of claims 3, 4, and 10. Applicants submit, however, that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

JP'110 publication align the centers of all the rolls on the same line in a short time to improve the accuracy of rolling in multistage rolling mills for seamless steel pipes, etc., by correcting the centers of the respective rolling rolls with the center of a laser beam as a reference line. A laser irradiating part 41 is mounted to the guide 4 on the inlet side of the 1st stand S1 of multistage rolling mills for steel pipes, and a detector 51 for a laser beam is mounted to the guide 5 on the exit side of the final stand S8. A beam is emitted from the part 41, and the center of the detector 51 is aligned to the center 0-0 of the beam and this is used as a reference line for the centers of rolling rolls. Next, housings 1-1g are installed to stands S1-S8 and the deviations of the centers of the jigs mounted to the respective housings from the

beam center are detected with the detector 51. In accordance with the results of this detection, the centers of the respective rolling rolls are corrected, thence the jigs are removed, the housings are again installed to the stands and the centers of the rolling rolls of the stands S1-S8 are aligned to the reference line 0-0. (translation of Abstract from JPO and posted on EPO).

The present application however claims (e.g. claim 1), *wherein a roller groove of said pinch rollers includes one of a curvature radius which is greater than the outer diameter of said base material rod and a V-shaped roller groove with a cross section including straight lines is formed on each surface of said pinch rollers comprised of metal, and wherein the facing roller grooves respectively formed on the surfaces of a pair of said pinch rollers nip and draw said base material rod.*

The JP'110 reference does not teach pinch rollers with a roller groove as claimed. Owing to the pinch rollers with a roller groove, in the claimed invention, the position of the base material rod can be maintained at the proper position.

As seen in FIGS. 1-3 of JP'110, the rollers do not teach the grooves of the claimed invention. The abstract of JP'110 does not teach or suggest any limitation of the groove or the pinch rollers themselves. Its only states the rolls for rolling pipes. It is not clear that the rolls are pinch rollers. Further, as seen in FIG. 1, the figure of the rolls do not teach or suggest the radius larger than the material rod or that the groove has a V-shape, where the surfaces nip and draw the rod. JP'110 only discloses the centering of the rolls in the same line.

Therefore, Applicants submit that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention. Therefore, Applicants respectfully request the Examiner to withdraw this rejection.

IV. NEW CLAIMS

Applicants have added new claims to claim an additional feature of the invention and to provide more varied protection for the claimed invention. These claims are independently patentable because of the novel and nonobvious features recited therein.

Applicants submit that new claims are patentable over the cited prior art references at least for analogous reasons to those set forth above with respect to claims.

V. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicants submit that claims 1-20, all of the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. Applicants respectfully request the Examiner to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, Applicants requests the Examiner to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The undersigned authorizes the Commissioner to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: March 23, 2009

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